

## Trepidation About *Treponema pallidum*

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Arizona continues to be affected by outbreaks of syphilis among various groups and regions of the state. Since January 2007, significant increases in syphilis have occurred in multiple regions of Arizona including Flagstaff, Tuba City (Navajo Nation), on the Tohono O'odham Indian reservation, and in other Native American communities. There is concern that the incidence of syphilis in the greater metropolitan Phoenix area and in other Arizona Native American tribes could spread further as a result of these increases. In addition, infectious syphilis cases have increased significantly in Maricopa County among men who have sex with men (MSM) during the six-month period from May 2007 to October 2007 (Figure 1). During this time, 378 cases of syphilis were diagnosed in Maricopa County among MSM, as compared to less than 15 cases among this group during the same time period in 2000. The cases among MSM account for nearly 60% of all diagnosed syphilis cases in Maricopa County and approximately 57% are HIV co-infected. This urban epidemic of syphilis has arisen in several areas of central Phoenix, raising significant public health concern for the co-transmission of these diseases.

Arizona ranked number seven in the nation for congenital syphilis in 2006, after leading the nation in congenital syphilis rates from 2003 to 2005. Due to the continued elevated rate of congenital syphilis cases in Maricopa County, the Maricopa County Department of Public Health has renewed the recommendation for "triple screening" of pregnant women for syphilis. These congenital syphilis-screening recommendations have been adopted by some Arizona Native American healthcare systems.

Primary syphilis manifests as one or more painless chancres at the site of sexual exposure (mouth, vagina, and anus). Usually these chancres appear 1-3 weeks after exposure and disappear without treatment. Secondary syphilis usually follows 1-2 months later and manifests as a diffuse body rash that includes the palms and soles, mucous membrane lesions in the mouth, hair loss, and moist, flat, wart-like lesions (condyloma lata) in the genital area. Left untreated the primary and secondary stages progress to latent syphilis during which time there are no symptoms but the spirochete continues to spread to other organ systems. Persons with HIV may be more likely to progress to more severe manifestations of syphilis, including neurosyphilis. Syphilis in HIV-infected persons can also result in an increase in HIV viral load and a decrease in CD4 count.

Syphilis screening should be performed on those persons deemed at-risk using the Rapid Plasma Reagin (RPR) test followed by confirmatory testing (TP-PA, or FTA-ABS) on those with a positive RPR. Some labs use the syphilis IgG as a screening test. A positive IgG result should be confirmed by an RPR. Persons at risk for syphilis are also at risk for other STDs as well as HIV and should be tested for these infections. Persons with syphilis should be treated according to Centers for Disease Control and Prevention (CDC) STD Treatment Guidelines that can be accessed through the following website: <http://www.cdc.gov/std/treatment/>.

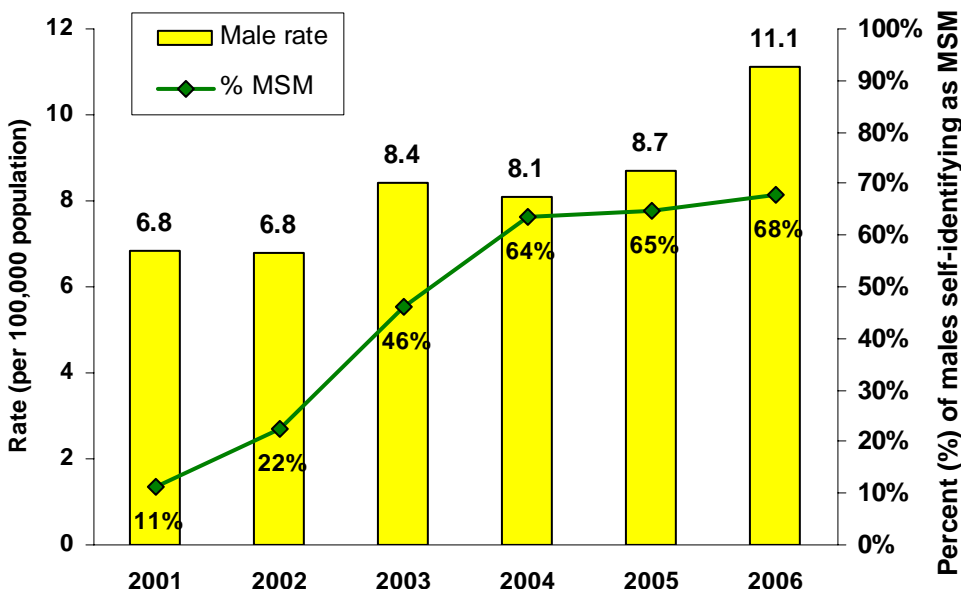
Medical practitioners providing care to the above populations and those engaging in sexual contact with these populations should maintain a high level of suspicion for syphilis. For information on syphilis and other STD testing sites by county please visit: [http://azdhs.gov/phs/oids/std/std\\_clinics.htm](http://azdhs.gov/phs/oids/std/std_clinics.htm) or call 602-364-4666.

Syphilis is a reportable disease. The revised communicable disease reporting form for sexually transmitted diseases as well all other communicable diseases is available at: [http://azdhs.gov/phs/oids/dis\\_rpt.htm](http://azdhs.gov/phs/oids/dis_rpt.htm).

### RECOMMENDATIONS FOR SYPHILIS CONTROL

- Syphilis screening of pregnant women.
  - First prenatal visit per A.R.S. §36-693,
  - Third trimester (28-32 weeks gestation)
  - At the time of delivery of a live born or stillborn infant
- Comprehensive bacterial STD (syphilis, chlamydia, and gonorrhea) and HIV testing of persons engaging in unsafe sexual activity.
- Timely reporting of syphilis and other STDs to the health department. Reporting forms are available at: [http://azdhs.gov/phs/oids/dis\\_rpt.htm](http://azdhs.gov/phs/oids/dis_rpt.htm).
- Treatment of STD cases according to CDC STD Treatment Guidelines available at: <http://www.cdc.gov/std/treatment/>
- Rapid partner follow-up, testing, and treatment

Figure 1. Primary and Secondary Syphilis Case Rates per 100,000 Population in All Males and Men Having Sex with Men (MSM), Maricopa and Pima Counties, 2001-2006





## Autism Spectrum Disorders: Screening for Early Diagnosis

By Raun Melmed, MD., Sue Stephens, MD and Sarah Brautigam, PH

With a prevalence rate of 1 in 150, autism is a major public health concern that has become the most prevalent childhood developmental disorder in the United States. Autism spectrum disorders (ASDs) are a group of developmental disabilities defined by impairments in social interaction, communication and the presence of repetitive behaviors.

ASDs are defined as a *spectrum* of disorders because each affected individual may have a unique set of developmental deficits and abilities related to socialization, communication and repetitive behaviors. Therefore, a person can be diagnosed as having an ASD whether he/she has high-functioning autism, Asperger syndrome or, low-functioning autism with no ability to speak.

### Know the Signs of Autism

- Does not babble, point or make meaningful gestures by 12 months
- Does not speak one word by 15 months or combine two words by 2 years
- Appears to have a hearing impairment; doesn't respond to name
- Loses language or social skills
- Poor eye contact

Current evidence suggests there may be many different "autisms" with different genetic and environmental factors at play. Children with autism often appear to be uninterested in other people and prefer to focus on inanimate objects. They may perseverate on areas of interest to them, but may be unable to succeed in learning a new subject that does not interest them. Additionally, those with autism may find it difficult to carry on a conversation because of their inability to understand what another person wants to talk about. Understanding social cues and gestures can be very challenging to those affected with autism. Young children with autism often do not know how to play appropriately with toys because they do not understand what the toys represent.

Though children can be diagnosed with an ASD as young as 18 months, most children are not diagnosed until they are 3 years old. Data from a Centers for Disease Control and Prevention (CDC) study found the median age of diagnosis was 5 years and 3 months in 2002 in the state of Arizona, which is significantly worse than the 2000 data that showed a mean diagnosis age of 4 years and 5 months. This is especially alarming since research has demonstrated that earlier diagnosis and intervention lead to better prognosis and outcomes. In a recent policy statement, the American Academy of Pediatrics stated that an autism-specific tool should be administered to all children at the 18-month well-child visit since symptoms of autism are often present at this age.

The Southwest Autism Research & Resource Center (SARRC) is a nonprofit, community-based organization in Phoenix. SARRC is dedicated to conducting research and providing education and resources to individuals with autism and their families and providing training to professionals about autism.

In an attempt to address the need for better physician training, SARRC launched its Physician Outreach Program. The goal of this program is to increase awareness and reduce the age at which children are diagnosed with autism. SARRC has distributed an Autistic Disorders Screening Kit™ to pediatricians, family practitioners and other healthcare professional in Arizona. This kit includes a brochure with step-by-step information on how to conduct an autism screening. As a component of this program, SARRC provides a comprehensive monthly training to pediatric residents from St. Joseph's Medical Center and Phoenix Children's Hospital. The residents spend the morning with a pediatrician learning how to better recognize autism in pediatric patients and how to operationalize autism screening into practice. SARRC's goal is to encourage more physicians to incorporate this brief screening procedure into their 18- and 24-month well-child exams.



**To request a free screening kit, please contact Sarah Brautigam at (602) 218-8196.** For more information about autism or SARRC, call (602) 340-8717 or visit [autismcenter.org](http://autismcenter.org).